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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,729	07/20/2005	Michael Stelter	002664-26	8390

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ROBERTS MLOTKOWSKI SAFRAN & COLE, P.C.
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MCLEAN, VA 22102-8064

EXAMINER

MARTIN, ANGELA J

ART UNIT	PAPER NUMBER
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1727

NOTIFICATION DATE	DELIVERY MODE
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12/23/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/542,729	Applicant(s) STELTER, MICHAEL	
	Examiner ANGELA J. MARTIN	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/6/10</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is responsive to the Amendment filed on October 6, 2010. The Applicant has amended claims 8, 15; and added new claim 16. However, the IDS filed on December 6, 2010, lead to a new rejection which is presented for the following reasons of record.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 8-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuichi et al., JP 07-296831 (machine translation), in view of Beckmann et al., US 2004/0038102 A1.

Rejection of claims 8-16 drawn to a fuel cell stack.

Yuichi et al., teach a fuel cell stack, comprising: a plurality of fuel cell elements and a plurality of separating plates, a respective one of the separating plates being located between a respective pair of fuel cell elements (abstract; Fig. 1), channels extend in a direction in which the fuel cell elements and separating plates are stacked (Fig. 3), a supply of combustion gas on a first side of the fuel cell elements and a supply of oxidizer on an opposite side of the fuel cell elements (0009), on the first side of the

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fuel cell element; a plurality parallel lengthwise channels are provided for routing of the combustion gas (Fig. 2), a distributor zone (pocket section) which connects the supply channel to first ends of the lengthwise channels, and a collecting zone (collecting section) which connects the discharge channel to second ends of the lengthwise channels (0013), and on the second side of the fuel cell elements, an oxidizer guide is formed which runs in the direction of the lengthwise channels and which is open to sides of the fuel cell stack for supplying of the oxidizer (Fig. 3, ref 1a). Fuel cell stack as claimed in claim 8, wherein the distributor zone tapers from the supply channel along the first ends of the lengthwise channels and the collecting zone tapers from the discharge channel along the second ends of the lengthwise channels (Fig. 3). Fuel cell stack wherein first and second sides face in opposite directions toward separating plate (Fig. 2 (a)).

Beckmann et al., teach at least one inside supply channel being provided to supply a combustion gas and at least one inside discharge channel being provided to discharge an exhaust gas (Fig. 1, 4, 5).. Fuel cell stack as claimed in claim 8, wherein the at least one supply channel and the at least one discharge channel are arranged by diagonally opposite corners of the fuel cell stack (Fig. 5). Fuel cell stack as claimed in claim 8, wherein the distributor zone and the collecting zone are made symmetrical with respect to the fuel cell elements (Fig. 4). Fuel cell stack as claimed in claim 1, wherein the distributor zone and the collecting zone are provided with cooling surfaces (0034). Fuel cell stack as claimed in claim 1, wherein at least one of the distributor zone and the collecting zone have heat exchange surfaces by which heat energy is transferable

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between the combustion gas and the oxidizer (0034). The oxidizer guide channels are directly in a surface of the separating plate (Fig. 2, ref. 12a).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to insert the teachings of Beckmann et al., into the teachings of Yuichi et al., because it is well known in the art to provide a means of heat exchange, as illustrated in Beckmann et al.

Response to Arguments

3. Applicant's arguments with respect to above claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Maru, US 4,444,851, teach a fuel cell stack comprising lengthwise channels which are open to sides of the fuel cell stack.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANGELA J. MARTIN whose telephone number is (571)272-1288. The examiner can normally be reached on Monday-Friday from 10:00 am to 6:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dah-Wei Yuan can be reached on 571-272-1295. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AJM

/Angela J. Martin/

Examiner, Art Unit 1795